Advisory Committee on Commercial Remote Sensing (ACCRES)

Tuesday, June 30, 2015 – 9:00 AM-12:30 PM

Meeting Attendees

- VADM Brown
- Mark Paese
- Glenn Tallia
- Tahara Dawkins
- Eve Douglas
- Richard James
- Kevin O'Connell
- Joanne Gabrynowicz
- David Gorney
- Roberta Lenczowski
- Benjamin Malphrus
- Scott Pace
- Robbie Schingler
- Walter Scott
- Michael Triller
- Troy Wilds
- Kelley Gilbert
- Wendy White

Meeting Minutes

ACCRES Committee 19th Meeting

ACCRES Introduction, Mark Paese

- Mark Paese introduced the 19th ACCRES meeting. Mark was previously the NWS Director of Operations before his role at NESDIS as DAA of Satellite and Information Services. Paese acknowledged the role the ACCRES committee plays in providing recommendations and guidance on matters relating to U.S. commercial remote sensing.
- Since the last ACCRES meeting many changes have taken place in the remote sensing world. This morning we will open with an address from Vice Adm. Manson Brown on his new role as Deputy Administrator for NOAA; discuss current topics and CRS challenges with Tahara Dawkins and receive a space policy news update from our friends on the White House National Security Council. ACCRES will also discuss significant legislative updates and a CRS position paper from the ACCRES Committee.

VADM Manson Brown Intro:

- VADM Manson Brown was appointed by President Obama in 2014. He joins NOAA after 36 years in the Coast Guard. VADM Brown plays a major role driving the Obama administration and NOAA priorities for weather and water services, climate science, plus the agency's integrated mapping and Earth-observing capabilities. Prior to joining NOAA, Vice Adm. Brown served as deputy commandant for Mission Support for the U.S. Coast Guard from 2012 to 2014. He served as commander of the Coast Guard Pacific Area in California from 2010 to 2012 and as commander of Coast Guard District 14 in Hawaii from 2008 to 2010. His previous tours of duty include assistant engineering officer aboard the icebreaker *Glacier* and command of Coast Guard Sector Honolulu and Group Charleston, South Carolina. From 1999 to 2002, he was the military assistant to the Secretary of Transportation. Vice Adm. Brown received a Bachelor of Science degree in Civil Engineering from the U.S. Coast Guard Academy, a Master of Science degree in Civil Engineering from the University of Illinois at Urbana-Champaign, and a Master of Science degree in National Resource Strategy from the Industrial College of the Armed Forces. He is a native of Washington, D.C.

VADM Manson Brown's Presentation

- VADM Brown acknowledged Kevin, chair, for his leadership on the ACCRES committee and discussed his interaction with the FACA committee. There are four priorities Dr. Sullivan has set out for NOAA.

    1. Promoting resilient communities (businesses and communities).

2. Evolving the national weather service in partnership with Dr. Uccelini at NWS.
3. Investing in observational systems. In the coast guard, VADM Brown tried to sustain his fleet so investing and sustainment is important to his office. He will work with Mark Paese and Steve Volz.
    i. The Polar-Follow-On is a critical system to sustain.
4. Achieving organizational excellence to ensure mission success.

- The VADM highlighted the charter to note ACCRES responsibilities to provide advice and counsel to the Office of the Under Secretary, Dr. Katherine Sullivan.
- ACCRES is very attractive to the Under Secretary and Assistant Under Secretary because it is an observational role. VADM Brown extended a direct line of communication to the ACCRES chair. Brown aims for a close strategic relationship with the committee moving forward.
- VADM Brown also noted the number of bills on Capitol Hill that include legislation about CRS. NOAA has not taken a position on any legislation but wants to work in partnership with ACCRES to engage the Hill on the legislation.

Questions for VADM Brown:

In a budget constrained world, there seems to be a need for interagency cooperation (DoD, NOAA, DoC, etc). What is NOAA doing to facilitate this? Encourage expedient licensure and regulation of CRS technology?

We are a civilian agency in the public safety business. Only the government can protect citizens against environment threats. There has to be a level of assurance with the instruments we license/regulate that in turn provide data/information to the public during crises. There is a need to articulate observational needs and contribute to the International Community.

Q: What types of things can CRS/ACCRES do to contribute to the artic sector?

The Artic Council could be a vehicle to raise the U. S. and world game regarding the Remote Sensing component and contributions to monitor the changing climate. Visit the Department of State (DOS) website that highlights arctic work. There may be a remote sensing portion in the DOS plans.

Kevin Mc'Connell, ACCRES chair, framed his goals for the 19th meeting:

- Asked NOAA to discuss the memo sent forward in February which highlights many of the concerns and priorities of the Committee.
- The February memo conveyed the Committee's outlook on CRS and the factors ACCRES believes puts U.S. leadership in CRS at risk.
- NOAA should consider CRS as information technology versus aerospace.
- Hoping to hear from leaders on how a regulatory policy can put us in a strategic leadership role reacting to and capitalizing on challenges to promote innovation in the industry. There are multiple players learning the remote sensing business in an open environment. These entities and countries are a new source of innovation requiring ACCRES and the United States to shift it's perception about policy on CRS.
- Every federal agency thinks they have an interest in CRS, so this makes regulating the area a bit more difficult.
- NOAA needs more resources for all of the things it needs to do by law: enforcement, regulation, etc. The idea that NOAA goes around the world to validate and enforce ground station requirements. That is impractical especially considering someone can technically have a ground station in their home, car, etc.
- The number of license applications at NOAA has increased. Can we template anything? Capabilities? But what about innovation? We can't template that.

Committee Discussions:

Committee members encouraged the need for the government to be vigilant and agile as devices and technology change. For example, high performance computing was exclusive to the U.S. government. Energy companies attempted to enter the market but in a few years, the spectrum shifted to many individuals and companies investing in high performance computing which is now a game console. There was a failure in the government to recognize that the times have changed.

Enforcement programs at CRSRA within NOAA have not expanded. They need more resources. What can ACCRES do to help? ACCRES wants to make sure CRSRA is fully staffed and supported. CRSRA cannot regulate properly with a growing field and a small staff. CRSRA wants to know given the technology and people they do have, how can they make it work? That's an answer and assessment CRSRA can give.

Q: What is CRSRA trying to do with the expectation? Exactly what the law states. Compliance with the license.

Q: Can you do that by validating that the architecture meets that license? If it is an operations license and the application doesn't look like it will ever be operational, should we consider whether the applicant actually needs a license for the technology? Currently NOAA looks at the capability not the intent. The law mandates we license technology that is capable of remote sensing.

NGA Perspective on CRS

- Many things in CRS are precedent-setting requiring a new perspective on regulations. National Geospatial Intelligence Agency (NGA) supports the CRS industry and has a new officer to support the industry within NGA. NGA wants to have a classified session with ACCRES to discuss new imaging, R&D contracts for smallsats, etc.
- Within the Intelligence Community (IC), the CRS Working Group (CRSWG) is revamped to help the organization make decisions. A senior level body that will make executive decisions on CRS.

DOS Comments

- The delegation from Japan came to NOAA to discuss a regulatory structure for CRS in Japan. A woman from the Japanese cabinet asked how many people do you have on your staff? She was astonished by the lack of resources allocated to CRS regulation.

Tahara Dawkin's Update:

The number of CRS licenses in recent years has significantly increased. Between 1996 and 2010 NOAA issued 20 licenses. From 2010 to present, NOAA has issued 46 license issues with 10 applications pending and 24 companies we told need licenses for their technology. We have three over the 20 day deadline, 5 requiring agency inputs and 15 licenses requiring data protection plans. CRSRA's workload is expanding.

- Since February of 2015, CRSRA has not issued any licenses, particularly in the academic sector because they have a Non Earth Imaging (NEI) component. A policy and procedure to assess NEI imagery has yet to be developed and agreed to by the IC.
- NESDIS, if a system has the capability to view the earth, they need a license. Even if there is no intention to view the earth so this includes any communications satellite system that has a STAR tracker for attitude control. The FCC agrees that we should license this type of technology. The FCC will not issue company licenses until they have a NOAA license.
- If H.R. 2261 the Commercial Remote Sensing Act of 2015 passes in the Congress, there is no licensing for

NEI. ACCRES will verify this.

- Q: Where does the intent to disseminate imagery come into play? It doesn't. Regulation covers capability not intent.
    - If your architecture contains no component for external dissemination of the data, should there be regulation over this technology?
- Ground Station sites: 26 in 2010 and currently 93 in over 71 locations. NESDIS anticipates that by FY2016 there will be over 100.
- 52 on orbit satellites currently and in 2010 we had 6.
- Increase in reporting and audits.
- Small satellites now dominate the market and CRSRA case load.

Sensors we are licensing:

- Applications for panchromatic (PAN), multispectral (MS), hyperspectral, infrared (SWIR & LWIR), Synthetic Aperture Radar (SAR), and Light Detection and Ranging (LIDAR).
- The jurisdiction is Direct Current (DC) to Gamma (the entire radio spectrum).

Foreign constellations:

- Anyone who wants to team up with a US company has a different regulation process. How should we handle this?
- Look up the case study on CH that was a Russian partnership with the FCC.

<u>Legislation</u>

- HR 2261 the Commercial Remote Sensing Act of 2015 would require to report to Congress on all CRS applications, deliberations and correspondences. The text of H.R. 2261 was consumed into the Space Policy Act of 2015, H.R. 2262 which passed the House in May. ACCRES will play an active role in shaping this legislative language.

<u>Committee membership</u>

- Advise Tahara on whether you will be staying an additional term on the Committee.

<u>Dr. Michael Mineiro comments from Capitol Hill</u>

- Capitol Hill is aware of the FACA Committee and industry and wants to discuss your concerns.

<u>Closing</u>

- Thanks on the dialogue; we will continue to work together.
- The work plan going forward…bright light shined on NOAA. Don't sacrifice the strategic for the tactical.
- Chair will send out a memo summarizing the actions from the afternoon.
- Please take a look at the CRS regulations and identify specific areas where we should be concentrating, and developing a rewrite for a future committee memo.